37. (New) The transgenic mouse of claim 35, wherein the nociceptive abnormality comprises an increased sensitivity to a thermal stimulus.

38. (New) The transgenic mouse of claim 35, wherein the abnormal activity level comprises decreased activity.

39. (New) The transgenic mouse of claim 38, wherein the decreased activity is characterized by a decreased velocity during ambulatory episodes in an open field test.

40. (New) A method of producing a transgenic mouse comprising a disruption in an endogenous intestinal alkaline phosphatase gene, the method comprising:

(a) introducing an intestinal alkaline phosphatase gene targeting vector into a murine embryonic stem cell;

(b) introducing the cell into a blastocyst;

(c) implanting the resulting blastocyst into a pseudopregnant mouse, wherein said pseudopregnant mouse gives birth to a chimeric mouse; and

(d) breeding the chimeric mouse to produce the transgenic,

wherein where the disruption is homozygous, the mouse exhibits a nociceptive abnormality or activity level abnormality, relative to a wild-type mouse.

41. (New) A cell obtained from the transgenic mouse of claim 35.

42. (New) A targeting vector comprising:

(a) a first polynucleotide sequence homologous to a first region of an endogenous intestinal alkaline phosphatase gene;

(b) a second polynucleotide sequence homologous to a second region of the endogenous intestinal alkaline phosphatase gene; and

(c) a selectable marker located between the first polynucleotide sequence and the second polynucleotide sequence,

wherein the targeting vector when introduced into a murine embryonic stem cell, results in a transgenic mouse having a disruption in the endogenous intestinal alkaline phosphatase gene, wherein where the disruption is homozygous, the mouse exhibits a nociceptive abnormality or activity level abnormality, relative to a wild-type mouse.

43. (New) A method of producing a targeting vector capable of disrupting an endogenous intestinal alkaline phosphatase gene, the method comprising:

(a) providing a first polynucleotide sequence homologous to a first region of an endogenous intestinal alkaline phosphatase gene;

(b) providing a second polynucleotide sequence homologous to a second region of the endogenous intestinal alkaline phosphatase gene;

(c) providing a vector comprising selectable marker; and

(d) inserting the first and second sequences into the vector such that the selectable marker is located between the first and the second sequences to produce the targeting vector,

wherein the targeting vector when introduced into a murine embryonic stem cell produces a transgenic mouse having a disruption in the endogenous intestinal alkaline phosphatase gene, wherein when the disruption is homozygous, the mouse exhibits a nociceptive abnormality or activity level abnormality, relative to a wild-type mouse.

44. (New) A method of producing a targeting vector capable of disrupting an endogenous intestinal alkaline phosphatase gene, the method comprising:

(a) providing a polynucleotide sequence homologous to an endogenous intestinal alkaline phosphatase gene;

(b) generating two different fragments of the polynucleotide sequence;

(c) providing a vector having a gene encoding a selectable marker; and

(d) inserting the two different fragments into the vector such that the selectable marker is located between the two different fragments to produce the targeting vector,

wherein the targeting vector when introduced into a murine embryonic stem cell produces a transgenic mouse having a disruption in the endogenous intestinal alkaline phosphatase gene,

wherein where the disruption is homozygous, the mouse exhibits a nociceptive abnormality or activity level abnormality, relative to a wild-type mouse.

45. (New) A murine cell transformed with the targeting vector of claim 42.

46. (New) A murine embryonic stem cell comprising a disruption in an endogenous intestinal alkaline phosphatase gene, the disruption produced using the targeting vector of claim 42.